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EPISTEMOLOGY FROM THE ANGLE OF PHYSIOLOGICAL PSYCHOLOGY[1]

LAST summer I wrote an article which involved much of the material that I have incorporated into this paper, and then laid it aside for later comparison with more mature reflection. Since then I have read "The New Realism" by Marvin, Holt, and their colleagues, and find myself in substantial agreement with many of their fundamental positions. None the less, I feel that there is still a place for the rather simple scheme of thought which I have gradually developed through several years, and am glad of an opportunity to present it here, even though it may seem to some to be anachronistic.

Knowledge and reality are not identical. There is hardly any other distinction more important for us to make. The former, however, may be regarded as a part or phase of the latter, at least in the sense of actual. Any aspect of consciousness, be it the knowing process or what not, is real in the sense of being an actual occurrence, no matter how momentary it may be. Should we turn consciousness inside out, as it sometimes seems that the new realists would do, this last proposition might need modification, but, for my own part, I feel compelled to begin with my own consciousness, as psychologists generally insist that they must, when I deal with the most fundamental aspects of life, reality, or what you will.

I am well aware that when I take this point of view I seem to be landed in the solipsistic quagmire, and yet it is just this phase of the whole matter that I am inclined to deal with first. No chain is stronger than its weakest link, and I have felt the weakness of certain modern views at this very point.

It is, of course, true that no one of us begins as an introspective philosopher. We cut our teeth, have the measles, the whooping-cough, and perhaps our first love affair before we realize all the implications of our four-dimensional series of coexistences and se-

[1] Read at the annual meeting of the Western Philosophical Association at Evanston, Ill., March 22, 1913.

quences, but when we do introspect with proper rigor the world seems vastly different. Whether we will or no, there we are with our "stream of consciousness," as we call it, and all the outer world of which we were once so sure seems to have dissolved into the unsubstantial stuff of which our dreams are made. What shall we do? Many cut the Gordian knot and go serenely upon their realistic way with never a troubled thought, apparently, for the technique of their *modus operandi.* Their *ratio essendi* and *ratio cognoscendi* seem to be hopelessly mixed in spite of Kant's insistent warning. My own method of dealing with this problem, although it is but a simple one, seems to work, and runs as follows:

Whatever I find in my stream of consciousness, whether houses or lands, rocks, trees, fairy tales, or chunks of realistic philosophy, is apparently naught but consciousness when I give myself up to a real introspective debauch. I soon perceive, however, a seeming externality characterizing certain phases of the stream. This, of course, immediately contrasts with the rather pronounced subjectivity of the introspective panorama as such. What am I to do? Another aspect of the stream comes to my assistance. I find a tendency there to make guesses. I do not say that I myself am responsible. I simply find a kind of curiosity with reference to the changing aspects of the stream. Guesses are made and steps taken to verify. All this, I maintain, is in my stream. I am not attempting to think my way back to the innocent and innocuous semi-blankness of babyhood, where I should probably obtain no help for my problem. Instead, I am taking a cross-section of my adult consciousness and stating what I find. Many changing aspects of the stream are there, and an apparent externality, an internality, and withal a tendency to make guesses and to verify.

If some one else should not find what I do, he would need to devise some other method for extricating himself from the conscious flow of seemingly pure subjectivity. That there are apparently irreducible groups recent psychological studies would seem to indicate, which is, perhaps, a verification of Fichte's "idealists" and "dogmatists."

But, to proceed. I might assume, now, that the apparent forking of the stream is merely an illusion, and attempt to systematize the entire content of consciousness in accordance with some purely subjective principle. Any such procedure, however, continually ignores a constant aspect of the real, identified for the time being with consciousness itself. Furthermore, every step in my progress toward a consistent whole seems to be beset with increasing complexity. This, of course, does not refute such a system, but it does raise doubts which lead me, at least, to pause, and then turn in the opposite direction.

I make a new start, now, or try to, assuming that the seeming externality is the truly real and that the subjective is illusory. I do not get very far, however, in this direction. To assume that the external alone is real is to cut the ground from beneath my feet. I began with the stream of consciousness. In the last analysis, that alone is my warrant for presuming to speak at all. Otherwise, I am deaf, dumb, and blind, and might just as well be reckoned a stone or clod of earth along with the other varied but stolid impedimenta. To turn myself inside out, to reduce my stream of consciousness to the channel in which it flows, is to perform the highly sapient act of cutting off the limb on which I sat.

But one further possibility remains. I may assume that I am not entirely deceived with the seeming externality and internality, but that both are, in the main, complementary aspects of reality as a whole, and immediately the problem which previously seemed insoluble shows signs of rational cleavage and amenability to rational treatment. Undoubtedly other subsidiary problems appear which are not without their own inherent difficulties, as, for example, that "old man of the sea" the causal relation between the two, but with the major attitude decided upon, there is hope for an ultimately consistent account of the totality of phenomena without doing violence to either main division.

My next step is, I think, not quite the traditional one. Although such a dual view of reality has frequently been assumed, the initial step in epistemology has been an introspective one. Not a few writers have put the matter as follows: "Yonder is a stone in my field of vision. How do I bridge the seemingly impassable chasm between its objectivity and my subjectivity?" The answer has often been, "By an immediate grasp of the object through my outgoing subjectivity. Unless we get reality in this immediate first-hand way, we never get it." To me, however, this seems a kind of hocus-pocus. My own procedure is quite different. Why should I select a stone or any so-called inanimate object? I much prefer to experiment with an object that I call a human being. There in my field of vision is an object which strongly resembles my own physical self, which, I presume, I may be pardoned for speaking of in this anticipatory way. What theory can I develop to account for the relation of that individual to the objects in his field of vision which seem to be identical with objects in my field of vision, and to account for the aspects of his stream of consciousness which resemble my own as he states them to me?[2]

It is here, as it seems to me, that physiological psychology and

[2] I use simply the visual phenomena for illustration. The same method of reasoning would apply in the case of any or all of the other sense fields.

contributory sciences lend assistance. We can figure out the relation of the ether waves to the retina, follow the optic nerve to the cortical cells in the occipital region, and note that something peculiar happens then which seems to be qualitatively distinct from what preceded. It is true that science is not satisfied with qualitative appearances and seeks by further analysis simpler units, but this should not blind us to the reality of those appearances.[3] Further analysis means metaphysics, but the knowing process may not ignore what is immediately given. We assume atoms and electrons in the physical world, but the objects with which we immediately deal are trees, stones, and animal forms. We analyze our consciousness very minutely and assume simpler elements underlying those aspects which immediately appear. A very nice problem here is whether the fundamental elements are all qualitatively alike or unlike. The world-theories of Democritus and of Anaxagoras are here pitted against each other. But whatever the solution of this problem may be, we certainly ought not to ignore the appearances of things as they parade themselves before us in our conscious stream. They are real in the sense of actual, just as real as anything seemingly more substantial which we may assume in the external world.

The assumption, then, at this point, of a dual series in the case of the human object that we are considering would seem to meet the situation. In my field of vision are many objects which are certainly external to the physical self of the individual before me. He may change his physical relation to them and they remain apparently unaffected. He might die and be cremated, but the other objects remain the same. Just as certainly, too, as that there are such objects external to this individual whom I am studying, may I assume, upon the basis of his introspective account, that there is a stream of consciousness within him, at least within the periphery of his body, most likely, it would seem, in connection with his brain. The physiological data for this view, I need not introduce here. Now, if we assume that events objective to this individual have their correspondences in his stream of consciousness, like the pushing of a button which is followed by the flash or steady glow of light, we have a sufficient working hypothesis. We may not say at present, apparently, how the registering in consciousness comes about, nor in exactly what respect the conscious element differs from the physiological process, but that there is such a qualitative difference I can not deny.

I realize full well that what I have just stated is rather trite, simply parallelism, but epistemological rather than metaphysical parallelism. The causal relation between the physical and the psychical I do not touch.

[3] Cf. Holt, "The New Realism," page 329.

With this programme before me, developed in such an objective way, I make the obvious application to myself. Upon the basis of my physical resemblance to the individual studied and many others, I assume that such a dual series solves my epistemological problem. It is, of course, true that when I open my eyes and appreciate the immediacy of the objects in my field of vision, it does not seem as if there were a complicated physiological process between the objects and my apprehension of them. But how is it when I look toward the sun from time to time? It certainly seems as if the sun moves from east to west. Here is a direct conflict between things as they seem introspectively and things as they are when taken in a larger way. So, too, with the mirror and the virtual image recently used to illustrate consciousness.[4] If we depend simply upon introspection, we have difficulty with the situation. If, however, we view the matter with reference to some one else, it becomes apparent at once that the only image in the ordinary sense is on the retina of the beholder's eye. We must, then, assume the same for ourselves, even though introspection tells a different tale. The situation is the same with the immediacy of any of our visual experiences. Since light travels nearly 200,000 miles a second and the nervous current about 100 feet a second, we have practically instantaneous experiences, and they seem such, to the entire discredit introspectively of any complicated intermediate physiological apparatus. But if we find the apparatus in others, we can not avoid explaining our own experiences in that way in spite of the illusory seeming.

Let me touch the whole matter, now, in a somewhat larger way. Because of what I seem to find true of others, I am forced to assume a dual series to explain the thing we call knowledge, so far as I myself or others may be possessed of it. There is a subjective series and an objective series. Both are real in a true sense. The former, however, does not seem to be a duplicate of the latter, but rather representative of it. If we call the subjective entities symbols and those of the external series objects, we shall have little difficulty in systematizing the content of our conscious stream, and shall avoid not a few troublesome traditional connotations. It is especially worthy of note that I do not regard these subjective elements as copies, simulacra, or anything necessarily suggestive of a likeness. They are simply psychic happenings which mean objects or events or groups of either or both in the external series, or earlier subjective elements. It is, of course, also true that propositions are formed from these symbols and that these constitute our knowledge technically so-called. The test is the pragmatic one, as to whether or not they work.

[4] Cf. Montague, "The New Realism," page 289.

Both of these series have gaps in them, so far as I am personally concerned, and I assume the same in the case of others. As a child, the gaps in my internal series were exceedingly numerous, many of which have been filled as the years have passed; as a child, too, there were entities in my subjective series which had no corresponding objects in the external series, as, for example, ghosts and various graveyard horrors. In the childhood of the race, the same has been true. Wingèd lions, mermaids, and centaurs figured in the imagination of primitive peoples, but science has found no objects in the external series to correspond with those subjective symbols. And one thing further we must not overlook. Not infrequently entities in the subjective series have been objectified. The sculptor's dream, the architect's vision, and the engineer's imaginative constructs have taken bodily shape in the external series, modifying the face of nature and marking the progress of the race. What we call nervous substance, especially as massed in the brain of man, seems to be nature's offspring designed to transform nature herself. On the subjective side, there are ever new constructions, of which not a few become objectified and thus fill the gaps that existed presumably from eternity.

And this process, we may well assume, is an eternal one. Not, of course, for myself. I do not mean that. But each individual sustains this twofold relationship, each has the task of establishing a close correspondence between the two series, so that the subjective gaps may be reduced to the minimum and the objective gaps be filled so far as each individual may be productive. The individual, also, has the task of eliminating from his subjective series elements that have no correspondence in the objective series, or at least he should label them as purely subjective, and not expect them to function in the ordinary affairs of life. They are real in the sense in which I have used that term, but they constitute only one end of a relation, if that be not too paradoxical an expression.

These two series, all too briefly treated, may be summarized in a quasi-mathematical way. If we let small a_1, a_2, $\cdots$, a_n stand for symbols in the subjective series, each meaning a definite object or occurrence in the objective series, which might be designated small x_1, x_2, $\cdots$, x_n, respectively, then large A would be the ideal limit or sum of all possible knowledge, and large X would be the ideal limit or totality of what is knowable in the universe, and since each small a stood for or represented a small x, large A could be regarded as standing for or representing large X. The time, however, when such a complete representation of one by the other might occur it is not possible to predict.

In conclusion, I may say that I am well aware that such terms as

"representational," "dualistic," "correspondence," and "parallelistic" may be used in criticism of what I have presented. None the less, I raise the question, Does it not fairly well meet the situation? We talk very glibly about the universe and assert that, since $2+2=4$ within the circle of our experience, that is a fundamental characteristic of the universe everywhere. But how far does our knowledge extend? I do not mean our assumptions, but our knowledge. I sometimes suggest to my students the following measuring-stick for our spatial and temporal surroundings. Take 999 decillion factors each of which is 999 decillion miles raised to the 999 decillionth power. Place one end of a stick of that length at the center of the earth and then spin the old ball around in every possible direction. The other side, so to speak, would not be touched anywhere. We may substitute "years" for "miles" in the same expression and point toward the past and future. Neither beginning nor end would we be likely to reach. How much do we actually know about our environment? How trustworthy are our assumptions based upon our actual experience? And yet we continually speak in very emphatic terms. We work out systems of absolutist philosophy upon the basis of exceedingly relative experiences, and we use absolutist logic in the development of realistic theories of knowledge. Our body of actually tested knowledge is comparatively very small, and that of which the knowledge is an interpretation may itself be undergoing change.[5] It seems to be a decidedly fluid universe with which we have to deal. A theory of knowledge which makes provision for such fluidity would seem to be a real desideratum, even though it might be unsatisfactory in not a few respects. What I have given is, I think, of this sort. It does not insist on any conditions that might hamper the investigator, save what the investigator himself finds and values. It takes gratefully from each investigator and adjusts itself to facts. It appropriates, provisionally, what seems to be true, and enlarges its borders thereby. Knowledge thus grows from little to much. Chameleon-like, it changes with changing conditions. It apparently approaches an ideal limit, but would not be dismayed if assured that no such limit exists.

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[5] Cf. Höffding, "The Philosophy of Religion," page 68; James, "Pragmatism," page 259.

DISCUSSION

THE STUDY OF MORAL JUDGMENTS BY THE CASE METHOD

PROFESSOR GEORGE CLARK COX, of Dartmouth, has recently outlined the grounds for a conviction that the method of case study long employed by teachers of law may with profit be adopted for the study and teaching of ethics.[1] To aid in the adaptation of this method he suggests the preparation of a collection of the original sources of the moral judgments of society, after the fashion of the case-books of judicial opinions prepared for students of law. His discussion seems to indicate that in such collection he would include only those social judgments which are to be discerned from social action. With the difficulties involved in determining what social judgments are moral in their nature, he does not deal. He evidently feels that discrimination is necessary, for he says: "The case method seeks to know what the law is; and nothing is presupposed unless it be that the cases considered are known in common speech to come under the general heading, moral."

Manifestly such sources of social judgments as legislation and judicial opinion will not only fail to cover the entire field of ethics, but will embrace much that is commonly regarded as outside the pale of that study. No satisfactory criterion can be discovered in the sources themselves, as those jurists know who have struggled vainly to distinguish what is *malum in se* from what is merely *malum prohibitum*. Yet for the scientific moralist the distinction seems important. Rebaters go to dinner parties where no pickpocket would be invited. Society passes an essentially different judgment when it hangs a man for murder than when it fines a boy for riding a bicycle on the sidewalk or forbids recovery on a note unless the action is brought within five years from the day the note fell due. Clearly the fields of law and of morals are not coterminous.

As it is not safe to infer moral condemnation from legal prohibition or regulation, so it is equally dangerous to assume that the group approves of what it does not punish. In some jurisdictions adultery is not a crime. Parsimony and a prejudice against inquisitiveness are but two of the many non-moral considerations which militate against legal prohibition of many acts clearly regarded by the dominant element in the group as morally reprehensible.

These suggestions, however, do not touch the main thesis that the examination and comparison of actual recorded cases of social moral

[1] "The Case Method in the Study and Teaching of Ethics," this JOURNAL, Vol. X., page 337.

judgments is valuable for the study and teaching of ethics. The difficulties which arise by reason of the content of the subject-matter can be guarded against. The task might prove a valuable philosophic exercise. And the success of the method of study and instruction would not be seriously impaired if something non-moral crept in for observation and treatment. There is no indication that Professor Cox is endeavoring to alter any existing conventional limits to the field of ethics. He is concerned rather with the substitution of an empirical method for a metaphysical one, in the hope that from the fundamental likenesses in the ethical judgments of various peoples he may discover certain binding rules of conduct. To those for whom such a hope is illusory, he suggests that "if it should appear, after wide experimentation by many observers, that there is no universal basis for ethical teaching, the result, for all except the morally feeble-minded, would still be valuable." His proposal can be discussed without caring, for the moment, whether objective moral principles will emerge or not.

I. The Case Method of Teaching Law

What has been the value of the case method as applied to the study of law? It used to be a fond saying at the Harvard Law School that the case method does not teach us the law, but that it gives us the legal mind. May it not also give us the ethical mind, even though it leave us somewhat hazy about any formulation of ethical principles? Professor Cox insists that every teaching of ethics should be adapted to make men ethical. If by this he means, to give them the ethical mind, to make them skilled in passing ethical judgments, in differentiating between different ethical situations, he is not likely to meet with contradiction. With such a capacity at one's command in each concrete situation, it matters little for practical purposes whether one can formulate general laws or is versed in the formulations of others. It has been judicially declared: "General propositions do not decide concrete cases. The decision will depend on a judgment or intuition more subtle than any articulate major premise."[2]

That this system of case study furnishes valuable training in this subtlety of judgment or of intuition is generally conceded by those most familiar with it. At every stage the student is called upon to observe differences and distinctions, and, what is more difficult and more important, to evaluate them. Knowing nothing of any general rules applicable to the subject-matter under consideration, he reads a number of selected cases involving some definite class of individual

[2] Mr. Justice Holmes, in Lockner *v.* New York, 198 U. S. 45. For lawyers, it is important that this was in a dissenting opinion.

or social interests, such as contracts for personal service or injuries in dangerous employments,—cases which may profitably be compared with each other. In the class room, the student to whom a case is assigned states what he deems the material facts, the issue, the decree, and the reasons given therefor. The general discussion may be postponed until other cases have been stated. The instructor then puts supposititious cases. Fact after fact will be altered to make opposing cases more nearly correspond, to make cases which seem parallel diverge from each other. And at every point the student is required to weigh for the purpose of decision the importance of difference and resemblance. Each case is discussed from the standpoints of the soundness of the reasoning and the wisdom of the result. The various cases are compared to determine whether they can stand together. Conflicts of decision are recognized and the exact point of difference is ascertained.

Respect for judicial authority does not prevent the class-room recall of judicial decisions. The student must give his own judgment. Distinctions which the court disregarded are exalted. Resemblances and analogies discovered by the court are ruthlessly condemned as fallacious. The rapier of reason does not fear to pierce the ermine.

After the separate cases have been thus analyzed and conflict of decision has been marked out, there begins the work of weaving together the various strands. Having decided what is the correct decree for each given state of facts, the student attempts to formulate a principle which shall embrace them all. If it is not important that one case concerned an individual, another a partnership, and a third a corporation, the rule may be stated more broadly than was necessary to express the holding of any one decision. For some purposes it is important whether a promise was verbal or in writing; for other purposes, not. Hence a general statement may be made to mark out the line of difference. Conflicting rules are evolved from conflicting decisions. And when the rules are thus formulated, the process of putting the specific cases from which they were derived is repeated and the accuracy of the formulation is tested by the way the cases fall within it or without.

When the formulations are tested by the stuff from which they were made and are duly arranged in order, new cases still remain to be put. Deduction now succeeds to induction. The existence of the rule is assumed and attention is devoted to its application to situations not identical with any from which the rule was evolved, situations which have not yet arisen in the courts for adjudication. With the wider outlook, the student may now judge the rule by the way it would work if applied more generally. He is thus placed in a position to pass beyond the questions whether the decisions are consistent

with each other and whether the formulations of general rules are accurate, and to suggest where judicial opinion should be corrected by legislation. For this high function he has a comprehensiveness of view and a capacity of judgment which could never be acquired by committing to memory the statements of legal principles set forth in a text.

Such is the method of instruction out of which evolves the legal mind, the capacity to distinguish and evaluate for the purpose of decision the various elements in concrete situations. Thus is the prospective lawyer fitted for his task. He employs in the class room the same processes of thinking which he must use in the office and before the court. He forms legal judgments by a process of legal reasoning.

II. Legal Reasoning

The value of the case system of instruction can be better estimated after a consideration of the methods of legal reasoning. For the most part the methods of legal reasoning are the methods of all reasoning. The lawyer deals with facts, as the layman deals with facts. He has regard for the judgments of legal tribunals upon analogous situations as the layman pays heed to the judgments of others to whom he looks for guidance.

It is not essential to the discussion of legal reasoning to know with precision what for non-legal purposes constitutes a fact. In one of Birmingham's novels it is said that to a judge, a fact is no longer a fact, after a duly constituted court has found to the contrary. For the purpose of reaching a legal judgment by the appellate tribunal, the facts are those findings of the trial court which are disclosed by the record. But it is to be observed that in passing judgment on the situation disclosed by the record, many other facts or circumstances of a more general nature are important, though they were not in issue between the parties. For example, if the question before the court is whether an offer was accepted in due time, it is important to consider what are the existing means of communication. Due time in days of the stage-coach and the sailing-vessel is to be estimated by different tests than is due time in the days of wireless telegraphy. In criticizing a legal judgment, it is important to be familiar with contemporaneous tacit assumptions.

The record from the court below not only fails to give all the facts which must be taken into account, but it may include a number of facts which may at once be dismissed from consideration, because not relevant or not important to the legal problem to be solved. Minds will differ as to what facts are material to the issue before the court. Facts which are significant for one purpose are not for another. For example, take the rule of law that a statute relating to cities is a

general and not a special statute if it apply to all cities of a class, though not to all cities in the state. Do seaside resorts constitute a class? The question can not be answered except with reference to the particular legislation dealing with such cities. For the purpose of police regulation it may well be that the fact that such cities contain a small permanent population and have a large influx of temporary visitors in the summer entitles them to be regarded as a class distinct from other cities, whereas from the point of view of some measure relating to education they could not be thus set apart. The question of what constitutes a proper basis for classification can not be decided generally. It can not be decided in specific instances without a familiarity with many circumstances which may not at first glance appear material.

No general formula can be given for comparing the facts of one case with those of another adduced as a precedent. Some of the facts of one case seem to be identical with some of the facts of another. But no fact is completely isolated. It must be judged in its relations to other facts in the same situation. Most of the facts selected for comparison are found to be different from each other. This difference may be so great as to amount to direct and complete opposition. In other instances there may be some element common to both facts, so that they can not be regarded as completely opposed to each other. This distinction between mere difference on the one hand and opposition on the other may be criticized as somewhat tenuous, but it is a distinction which must be taken into account. The question presented by the distinction is doubtless one of degree; but so are most questions. The greatest difficulty arises when the facts in different cases do not seem comparable with one another. But in some fashion the total situations must be compared.

Legal reasoning embraces something more than the comparing of one case with another which is sought to be enthroned or dislodged as a precedent. After formulations of general principles have come to be regarded by the courts as established law, the lawyer must fit his case into some general principle. When there seem to be conflicting general (?) principles, he must argue the merits of one against the other. Often there will be two formulations whose general terms do not disclose that the application of one would require a modification of the statement of the other. Take, for example, the rule that no state shall make any law impairing the obligation of contracts, and the rule that the legislature of a state has complete control over the dissolution of municipal corporations. These two rules do not appear at first glance to conflict with each other. But when a concrete situation is presented, some facts will seem to bring the case within one rule, and some within the other. The dissolution

of a municipal corporation may leave its creditors with their claims unpaid and their debtor non-existent. A choice must be made. And since in orthodox legal theory cases must be decided in accordance with general principles, the case at bar must be forced within one rule or within the other. But what of the elements which went into the discard? Were they really negligible because they wouldn't fit into the principles? Or must the ancient formulations be rejected and a new structure laboriously reared? Or, perhaps, is it true that general propositions do not decide concrete cases? Some light appears from another utterance of Mr. Justice Holmes: "All rights tend to declare themselves absolute to their logical extreme. Yet all in fact are limited by the neighborhood of principles of policy which are other than those on which the particular right is founded, and which become strong enough to hold their own when a certain point is reached. . . . The boundary at which the conflicting interests balance can not be determined by any general formula in advance, but points along the line, or seeking to establish it, are fixed by decisions that this or that concrete case falls on the nearer or farther side. . . . It constantly is necessary to reconcile and adjust different . . . principles, each of which would be entitled to possession of the disputed ground but for the presence of the others."[3]

After distinctions between the facts of different situations have been made, the distinctions must be evaluated. A study of precedents indicates what evaluations have been made. But all too seldom does it disclose how they have been made. This is the most baffling problem in legal reasoning. For the measuring-rod is seldom disclosed. It may be doubted whether the one who estimates the differences is himself aware of the standard he employs. The methods of mathematics are unavailing where the units are not of the same order. No two cases are on all-fours. Every case presents a novel situation. Suppose a precedent: five facts, *A, B, C, D,* and *E;* decree for the plaintiff. Another precedent: five facts, *M* (not *A*), *N* (not *B*), *O* (not *C*), *P* (not *D*), and *Q* (not *E*); decree for the defendant. A new case arises for decision: five facts, *A, B, C, D,* and *Q* (not *E*). Within which precedent does the new case fall? It may well be that though the facts of the third situation correspond with those of the first and conflict with those of the second in four out of five particulars, that the one point of accord with the second may be so important that decree should be for the defendant rather than for the plaintiff.

And here the crucial question: "Why *so* important?" Without doubt many judges have sought for some metaphysical test in order to construct an ideally consistent system of legal theory. But seldom

[3] Hudson County Water Co. *v.* McCarter, 209 U. S. 349.

have they been uninfluenced by considerations of the way the rule selected would work out in practise. Indeed they have often employed their fictions and abstractions to attain the end chosen from practical considerations. In nearly every decision it is possible to discover the application of some standard of public policy or of fair dealing between man and man. Will the declaration of the rule on which the decree is based tend to promote good economic and social conditions? The question concerns not only the application of the decree to the case under adjudication, but the application of similar decrees in analogous cases. But the finding of the measuring-rod is not yet attained. There appears the possibility of an infinite regression. We must ask how the court decides what economic or social conditions are good, how it decides what tends to promote such conditions. Well may Mr. Justice Holmes say: "The decision will depend on a judgment *or intuition* more subtle than any articulate major premise." Those to whom has been revealed the secret of the mental processes of the judges know that often the decision is first agreed upon and the reasons discovered afterwards.

But these intuitions, if intuitions they be, are trained intuitions. Their application is safeguarded by subsequent reasoning. Account is taken of many intuitions revealed by the decisions of others and so far as possible of the considerations by which the intuitions are influenced or controlled.

Such are the more important steps in the process of legal reasoning. The lawyer trained by the case method has acquired by actual practise a skill in his intellectual art which equips him for the work he has to do far better than could any method of instruction which lays chief emphasis upon inculcating a knowledge of general principles. He may stumble when called upon to give a definition. But no client asks him for a definition. He has learned what elements to consider in solving a concrete problem, and how the various elements are to be judged. He has learned to formulate a rule from concrete instances. He has learned how to know whether a given state of facts comes within that rule. He knows how the rules came to be formulated; that they arise from a similarity of decision in analogous cases; that the decision in each case is based upon some judgment as to what should be done with the situation disclosed in that case. So he knows that if general facts or theories tacitly assumed in that case no longer exist or obtain, a case which seems to be on all-fours with the earlier case as it was stated really involves a new and different state of facts. He can thus not only distinguish his case from another which may appear to afford a precedent, but he is aware that the formulated rule based on the earlier decisions has, if stated to-day in the same general terms, a

new and different meaning. It is therefore not a rule to apply when the facts which gave it form exist no longer. It expressed men's judgment upon a situation which is no more. It is a structure which should fall now that its foundations are gone. The law of gravitation can with profit be invoked. The structures of men's minds have a pernicious habit of self-support after their only legitimate foundations have vanished.

III. The Value of the Case Method to the Study of Ethics

So much for the methods of legal reasoning and the system of case instruction. It must be apparent that the judgment which one may make as to his own action or the action of another in any situation which may be regarded as presenting a problem of morals is to be reached by methods substantially similar to those employed in reaching legal judgments. It would seem to follow that if training by the case method is beneficial to one who must make a legal judgment, so must it aid one to face and solve a problem of morals. And from the point of view of training, it matters little if many of the cases selected for study involve questions which philosophers have not agreed to regard as ethical.

The foregoing analysis has missed its mark if it has not disclosed many analogies between legal situations and those which are ethical. Every case calling for the exercise of a moral judgment is in some respects unlike every case which has preceded. And the differences must be discovered and evaluated in order to know whether an earlier case furnishes a precedent in point, to know whether the rules formulated from a multitude of prior instances are properly applicable, or whether, like some rules of law, they are mere structures in the air with no substantial foundation. And in this evaluation of differences, the standard in some vague and ill-defined way must be how the action based upon the judgment will result, whether it will make for those qualities of personal character and for those social conditions which are to be deemed good.

A possible difference is here to be noted between ethical and legal judgments as to the test of goodness. The court must consider how a rule formulated on the basis of a particular judgment will work if applied generally. For the binding force of precedent is ineradicably interwoven into the legal system. But there may possibly be moral situations where each individual may be his own supreme court with power to decide each case on its own merits alone. He need ask only how this particular action will result. Where the situation is entirely unique, he need not think in terms of general rules. He need not fear the establishment of precedents that will present themselves later to bind and hamper. But if his action

affect his fellows, he can not expect society to take the same point of view. Society will tell him that it can not view his act as an isolated act. It will talk to him of the force of example, and inform him that it can not permit to a man of intellect and self-control what it would be dangerous to allow to the weak and undiscerning. For those who are feeble may assume that they are strong and so imitate their betters to the harm of the social body.

In passing moral judgments as well as in the case of legal judgments, one does well to know all the facts which may possibly be material and to view them in the light of the particular issue which is presented. The moralist as well as the lawyer needs some criterion in determining what for his purpose constitutes a fact. His several facts will not be found in isolation. Facts in different situations which seem to be identical will on more careful analysis be found otherwise. Many facts will prove little susceptible to comparison. The one who must pass judgment on an actual rather than on a hypothetical moral situation must combine the functions of trial court and appellate tribunal. He has no record duly certified from a court below to relieve him of responsibility for what will often prove the most difficult part of his task.

A word remains to be said as to the reasons advanced by Professor Cox for the adoption of the case method in the study of ethics. He looks to the possibility of arriving through this means of study "at an objective ethics whose authority over all men would be equal and imperative." He refers to the respect paid by "all intelligent and instructed adults to the laws of the physical sciences" and adds: "If there should be found, upon investigation, laws as absolute for man's successful continuance in society as there are now for his successful resistance to the forces of nature, exhortation of every sort would give place to instruction. . . . If there be an objective morality which no intelligent man can disregard, its value will be incalculable. We shall know *what* to teach at least." His hopes for the outcome of the quest may be surmised from the assertion that with the fundamental likenesses in different systems of ethics "the natural inference would be that there is *an ethics* which could be generalized from them, giving us a rule of conduct binding, not from without, but in the very nature of conduct itself." His faith in the possibility of discovering such absolute laws in the realm of morals seems unshaken by his later conclusion that "no universal law has been found except that each organism or organization applauds its upholder and condemns its threatener."

Suppose that some such "universal law" is "found," and many others likewise. What profit have we? Will this make men moral?

Will it aid them greatly in ascertaining in concrete situations what upholds and what threatens the social organization? It does not make men ethical merely to know a formulation, however well founded it be. No formulation works automatically. None can be applied mechanically. This, Professor Cox seems to recognize, in part, in his statement that "the only *ought* is the intelligent recognition of the place of all interests and prudent adaptation to them." But no stress is laid upon the value of the case method for training in this power of intelligent recognition and prudent adaptation. A wise and discriminating formulation (term it, if you will, a "general principle") is one of the elements which may be of service in reaching an intelligent recognition of conflicting interests. But it is only one element out of many which must be considered. To fix attention on one element to the neglect of the others may blind rather than clarify the moral vision.

Objection may be urged also against the attitude of Professor Cox towards the value of the possible discovery from the case system that there is no "universal basis for ethical teaching." "If there be no such objective morality," he says, "then it will be wise for men to choose their standards according to temperament and tradition. They will know frankly where they stand, where other men stand, and what may be done in the premises." And on this point he says nothing more! Hearty accord may be given to the statement that the conclusion whether an objective morality exists or not can be reached "only through a scientific study of actual human conduct" and never "through a theoretic ethics based upon a metaphysical system." But are we forced to conclude that the intellect, if it fail to discover an "objective morality," must retire and leave to "temperament" the task of making moral judgments? It can not be too strongly stressed that the aim of ethical teaching is to make men competent to differentiate and evaluate the various elements of the concrete situations upon which an ethical judgment must be passed. This is the principal criterion by which any method of study or instruction must be valued. Of secondary importance is the question whether it will enable us to discover general laws or to know that none exist.

That the application of the case system to the teaching of ethics has possibilities of incalculable service in training the capacity to form moral judgments seems beyond dispute. This alone justifies extensive experiment. Those who hope that it may result in giving us simpler and more definite canons of conduct may be sadly disillusioned. In the study of law it has not led students to believe that what is commonly termed "the law" is a clear and simple objective entity or that there are rules of law which may after wise selection

be mechanically applied to the solution of concrete problems, as a lever may be pulled to start a machine which then does its work without requiring further human guidance. Nor does this conclusion drive us to "temperament and tradition" searching for a "standard."

Needless confusion might be avoided if we would cease to press the possible analogy between the activities of nature and the decisions of men. Study of law by the case method does not incline one to liken the volitional judgments of the agents of society to the phenomena of the physical realm. Both furnish material from which men may generalize, and so make or discover what are called laws. But until the apple falls in one direction in Kansas and in the opposite direction in Nebraska, the parallel between the decrees of men and the observed uniformities of nature will be incomplete.

But there is a scientific *method* for law as well as for physics. The merits of the case system have been amply established by long service. So much is common to the nature of legal and of ethical judgments that the method which has proven valuable for the study of law may safely be applied to ethics. By this contribution of a scientific method to the study of ethics, the lawyer may render a signal and possibly unexpected service to the moralist who has often chosen so lightly to look to him for bad example rather than for precept.

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A NEO-REALISTIC THEORY OF ANALYSIS

IT is perhaps dangerous to criticize the "new realism"; you are likely to be overwhelmed by a score of six to one. But though a sympathizer with the aims of the movement, I should like to play the part of "devil's advocate" for the moment. I have recently been interested to discover what may be the nature of analysis. But when I turned expectantly to Professor Spaulding's article on the subject,[1] I met with some disappointment.

M. Bergson bears the brunt of the attack in the article in question; an attack so interspersed with symbols that it has overawed several of the reviewers. Moreover, any criticism of the paper would not be a criticism of Professor Spaulding alone. When the realists give battle to the idealists on the field of logic, they remind me of an argument I once overheard between two youngsters of the age of four. One said to the other: "I can lick you." The other squared

[1] "The New Realism." Pages 153–247.

away: "You can not." "Well," said the first, "if I can't, I got a big brother what can." Now, in logical quarrels, the big brother of all the realists is Mr. Bertrand Russell. Professor Spaulding recurs to him for confirmation at all the difficult points, till it would seem the real protagonists in the article are Mr. Russell and M. Bergson. The real aim of the paper is, therefore, perhaps best stated as a vindication of the powers of modern symbolic logic to handle all questions concerning spatial and temporal continuity. But I seem to find the result unsatisfactory on three different scores: first, as a critique of Bergson; secondly, as an account of analysis; and thirdly, as meeting the difficulties involved in applying the mathematics of the continuum to the spatial-temporal world.

First, as to Bergson. I fully agree that M. Bergson ought to know more about symbolic logic. But we have only to read the criticism offered by Mr. Russell himself[2] to have awakened in us a desire that the realist critics might in turn perceive the strong as well as the weak points of Bergson. Bergson does not, as I understand him, deny either the possibility of analysis or the value of concepts, but he does deny the validity of most "analysis by concepts." Concepts, for him, are convenient artificial handles, by which reality may be grasped; and there is no contradiction in using them, any more than in using language, providing you remember that neither words nor concepts are identical with the entities symbolized. The most fundamental proposition of his philosophy is perhaps the statement that change is more simple than permanence. But this is not the denial of analysis; on the contrary, it is the affirmation of a new sort of analysis. All apparently permanent things are complex; analysis will reveal that they are due to a combination of changes. A motion may have natural limits, it may be complex,—such, for instance, is the case with the motion of walking, which is naturally broken into steps,—but it is not *per se* broken into an infinite number of points passed through. When, later, you put down your finger and say the moving body passed through *this* permanent point, the point thus designated as permanent is really the complex product of two motions, the first, continuous motion, and the second, motion of cutting across it. Professor Spaulding well insists that this possibility of cutting at any point is our best proof that the motion was not at that point discontinuous. But for Bergson the continuity was prior, and is not constituted by the cutting. Furthermore, I am not convinced that Bergson is logically compelled to an indiscriminate monism because he denies the adequacy of Professor Spaulding's type of "analysis." There is complexity in Bergson's world,

[2] *Monist*, Vol. XXII., pages 321 ff.

but he denies that the most "simple" existent elements are the mathematical points and instants. And so, I do not think Professor Spaulding's main purpose, that of refuting Bergson, has been accomplished.

But secondly, I am doubtful about Professor Spaulding's notion of analysis. Is it analysis at all, this theory of the continuum? Professor Spaulding speaks frequently of "modern analysis." I confess "modern analysis" looks to me very much like synthesis. The modern doctrine of the continuum appears, at first sight at least, to be an attempt to produce a synthesis of elements which shall correspond, as nearly as may be, to what the ordinary man, doubtless vaguely, calls continuity. There is a sort of irony in the language by which we designate our most thoroughly synthetic sciences, when we name them, for instance, "mathematical analysis," or "analytic mechanics." Of course it may be denied that mathematics is synthetic: it is a quarrel of long standing. Nevertheless, I, for one, can not agree that all of mathematics is contained within the first few postulates, and all the mathematician ever does is to draw out the endless complexity concealed in these, as the conjurer draws a succession of rabbits and brickbats out of a hat. The mathematician seems to me to be a builder of structures and systems. Therefore again I was disappointed when I turned to Professor Spaulding's article: its title promised "analysis," but the burden of the text was synthesis.

And then, thirdly, as to what is actually the theme of the paper, even here was I disappointed that Professor Spaulding did not deal more pointedly with those doubts which the theory of the continuum, taken as a whole, still leaves lurking in the minds of some of us. Let me run over the theory itself as expounded by Professor Spaulding, laying stress on certain points he passes by. Professor Spaulding begins with the series of whole numbers. At this stage in his paper he is not discussing the constitutive theory of relations. This is unfortunate. Instead he discusses the analysis of wholes into parts,—and his conclusion seems to be that there is no prior whole nor any analysis. Therefore the case is not illuminating for the problem of analysis. So it might have been better to discuss internality of relations at this point. For had I been called upon to name the most perfect example I could find of entities which are constituted by their relations, I think I should have mentioned first of all the whole numbers. The numbers seem to consist of nothing but their relation to other numbers. Conceive, if you can, of a number two which is neither following one nor before three. Indeed, the numbers are "separate" and "individual," but this is just that to which the de-

fenders of the internality theory "point with pride," as a beautiful example of the capabilities of their theory. The paper seems, therefore, to reveal here also a certain misapprehension of the real "bite" of the opposing arguments.

But recurring to the development of the continuum, we may remark that the rational numbers are really a series separate from the whole numbers, though built up of pairs of the latter. Logically they are not interpolated into the whole number series, though I fear Professor Spaulding's formulation might suggest it. They consist of all those pairs of whole numbers which do not contain a common factor, arranged according to a rule of "natural" ordering. Three-over-one may *thereafter* be correlated with the whole number three, but until that is done there are no natural divisions in the monotony of the rational series. The real numbers, in like manner, are the series of all the possible limits in the natural order of the rationals, and this series, in turn, is divided into stretches by being correlated with, but not interpolated into, the rationals. This real-number series is the "numerical continuum."

Now what happens when we apply this continuum to space? For one thing, it is obvious that the series in question contains no units of length, indeed in itself no suggestion of spatial extension whatsoever. The series which is contained in a long line and that contained in a short line are mutually indistinguishable. So it arises that some of us have a doubt, perhaps unjustified, whether what we commonly think of as continuous extension, as existential spatial continuity, is completely defined by equating it with a mathematical continuum. Or, to put it otherwise, in the space-series considered as a point-manifold, the points are "non-extended." Extension must, therefore, enter by way of the "organizing relations." But so long as these relations are those of the mathematical continuum merely, there is no distance; each point is an infinity of points distant from any other; nor is there any natural process of correlation with whole numbers, for since the points are indistinguishable from one another, there are no three-over-one's which can be conveniently correlated with three. Of course we can superpose upon the continuum a concept of distance, or its equivalent, defined in ordinal terms, but in the perceptual world there is something almost qualitative about spatial extension which still escapes us. Our mathematics has produced an imitation of space, but not space itself. It will be remembered that M. Bergson distinguishes between (mathematical) "space" and (real) extension, and Professor Spaulding's true task was to attack the validity of this distinction. But has he done it? Let us grant he has shown the identity of the mathematical and the

existential spatial continua, though Bergson would not grant this. Even then the task lies before him of proving that continuous extension can be analyzed into continuity plus a somewhat,—which is either extension, or else something other than extension. But in the former case, the validity of Bergson's distinction between mathematical space and extension is not impugned but justified. So, if Professor Spaulding is to give us an adequate analysis of space, it therefore remains that he tell us what that is, which is not extension, but which, added to mathematical continuity, will give us continuous extension.[3] Then and then only can he claim to have analyzed space, —by giving us the inverse synthesis.

The same considerations as to the relation of mathematics to experience apply, in double measure, to time and the other topics of Professor Spaulding's paper. In short, as I said before, the article left me with many doubts and queries: has he refuted Bergson; has he given us analysis, or is it synthesis; has he given us an exhaustive account, not merely of the mathematical properties of mathematical space, but of real space as well?

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REVIEWS AND ABSTRACTS OF LITERATURE

Instinct and Experience. C. LLOYD MORGAN. New York: The Macmillan Company. 1912. Pp. 298.

Readers of *The British Journal of Psychology* will recall the articles on Instinct by Lloyd Morgan, Stout, Myers, McDougall, and Wildon Carr which appeared in that magazine,[1] and will remember that the papers were written for a joint symposium on the subject which was held by the Aristotelian Society, the British Psychological Association, and the *Mind* Association, in the summer of 1910. Professor Morgan, in the present book, taking as a kind of text his own views and those of some of the others who shared in the discussion, elaborates a statement of what we may call his philosophy of science. The earlier chapters, on "Instinctive Behavior and Experience," "The Relation of Instinct to Experience," "Reflex Action and Instinct," and "Hereditary Dispositions and Innate Tendencies," serve as a fuller expression of the author's views on the immediate subject of the symposium. Instinct is defined as "that which is on its first occurrence independent of prior experience; which tends to the well-being and preservation of the race, which is similarly performed by all

[3] Let it be borne in mind that I am here inquiring about the relation of mathematical to empirical space, and not of metrical to ordinal geometry, except as the latter relationship exactly represents the former, which itself is part of the question at issue.

[1] Vol. III.

the members of the same more or less restricted group of animals, and which may be subject to subsequent modification under the guidance of experience." He maintains that the performance of instinctive actions depends wholly on subcortical connections, but that during their performance the cortex receives afferent impulses from the external situation, from the movements of the animal, and from its visceral disturbances. It is by virtue of this effect on the cortex that instinct is later modifiable and that instinctive action differs from reflex action. On the other hand, instincts, as based on subcortical connections, are to be distinguished from innate mental tendencies, such as Mozart's gift for music, which rest on congenital cortical dispositions. The effect of experience on the instinctive response to a situation is to give the situation meaning, and meaning, Professor Morgan distinguishes as either primary or secondary. Primary meaning is furnished by what the author calls primary retention, which is virtually what Fechner called the memory after-image, and what Poppelreuter, under the term "*Secundärerlebnis*" has recently been making the foundation of the higher mental processes. In the sequence of events *a b c d*, *a b c* is still lingering in consciousness when *d* appears, and by thus lingering it constitutes the primary meaning of *d*. Secondary meaning can exist only when the experience is being repeated: in this case, when *c* occurs, there is a vague anticipation or preperception of *d*, which constitutes the secondary meaning of *c*. Action guided by secondary meaning is intelligent. While rejecting McDougall's curious doctrine that instinct is guided by inherited images, Morgan is not unwilling to grant that some very vague preperceptions, based on innate cortical dispositions, may exist at the first performance of an instinctive act. To this the reviewer would assent only in so far as it implies the statement that an inherited expectant attitude may exist in certain situations; if the kinesthetic sensations from this attitude constitute a preperception, then a preperception may occur at the first performance of an instinctive movement. This would hardly be what Professor Morgan means, however, as an inherited attitude would be based on subcortical connections.

In the last four chapters of the book, on "The Ground of Experience," "Natural History and Experience," "The Philosophy of Instinct," and "Finalism and Mechanism: Body and Mind," the author passes to the consideration of more fundamental problems. To Bergson, whose views were, in the original symposium, championed by Wildon Carr, the major part of the critical discussion is given, and in many respects Professor Morgan's treatment of the French philosopher is sympathetic. For instance, he would not deny that there exists in us a power of intuition which is set over against understanding and thought. It is by this power that we apprehend the process of experiencing, whether in ourselves or in others, as distinguished from the objects experienced: "the *ing* rather than the *eds* of experience." But he objects strongly, and in the reviewer's opinion most justly, to that feature of Bergson's method which "founds on the results of analysis a sundering of orders of existence." The processes of change, of experiencing, which for Bergson be-

long to the vital alone, may exist in all reality, inorganic as well as organic. Professor Morgan might have added that since thought can apply its system of concepts to the world of the vital and psychical as well as to the world of "dead matter," while intuition can feel itself into the processes of change in the inorganic physical world as well as into those of life and mind, a far more systematic account of reality is given by regarding the worlds of "description and appreciation," of "objects and will-attitudes," to use the terms of two of our American philosophers, as different interpretations of the entire world order rather than as two world orders. If the Bergsonian philosophy says that system is not what is desired, it furnishes but another example in the history of thought of the attempt of philosophy to deny its own ends.

Professor Morgan, finally, rules out of scientific discussion altogether any question as to the ultimate source or ground of the world order, and rejects as a violation of this limitation the incursion of any entelechy, vital force, or Bergsonian pure memory into the realm of phenomena. The world order is one. Yet he is willing to admit that there may be vital phenomena which physico-chemical laws are inadequate to explain, and psychological phenomena which biological laws are inadequate to explain. But these remainders must not be accounted for by referring them to extra-phenomenal sources; we must simply "seek to correlate phenomena which will not submit to identification."

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Experimental Psychology and Pedagogy. R. SCHULZE. English translation by RUDOLPH PINTNER. New York: The Macmillan Company. 1912. Pp. xxiv + 364.

Few texts dealing with the application of psychology surpass this book in the quality of the typography (although the glazed paper is somewhat tiring to the eye), in the number (314) and excellence of the illustrations, and in the clearness of exposition, suggestiveness, and freshness of treatment.

The reading of this compendium will prove refreshing to the professional experimental and educational psychologists—although they will find little material within its pages not already familiar to the specialist—and very informing and stimulating to the student, pedagogue, school administrator, and lay reader. The author's aims are to give an exposition of those mathematical and experimental methods of scientific psychology which are applicable to the solution of experimental problems in education, and to set forth a few typical results already obtained in experiments on sensation, perception, ideas, feeling, volition, attention, consciousness, assimilation, memory, apperception, speech, physical and mental work, and psychical correlation. An ingenious chronoscope of the author's invention, said to be superior to the Hipp, is also illustrated and described.

Schulze shows considerable ingenuity in the suggested educational applications which he makes of various psychological experiments, but he

makes little effort to present an array of educational findings sufficiently impressive to convince the reader of the value from the results already obtained of the method of psychological experimentation in the field of education. Several of the more important topics of modern educational psychology and experimental pedagogy receive no attention, and likewise American psycho-educational investigations which have departed from the orthodox rubrics of experimental psychology receive very scant mention. Uninformed Americans who read the book must not, therefore, conclude that our educationists are making no contributions in this field of scientific research. The author, in common with a few American and British psychologists, is inclined to place rather too much value on the method of correlation as a means of measuring intelligence. So far as concerns clinical diagnosis—and diagnosis fundamentally is clinical—the method of correlation has thus far proved of no service. None of the existing intelligence scales is in any way based upon correlation coefficients.

The work of the translator has been well done. The reviewer believes that the customary word "exposure" is preferable to the word "exposition" as a term by which to indicate the presentation of a stimulus to the observer.

J. E. WALLACE WALLIN.

UNIVERSITY OF PITTSBURGH.

Hegel-Archiv, herausgegeben von GEORG LASSON. Band I., Heft I., Hegel's Entwürfe zur Enzyklopädie und Propädeutik, herausgegeben von DR. J. LÖWENBERG. Leipzig: Felix Meiner. 1912. Pp. xxiv + 59.

This new enterprise in support of the study of Hegel takes its rise in the conviction that there is a renewal of interest to-day in the teaching of that great thinker. It does not aim, however, at a reestablishment of his system as such. The problem, rather, is that his philosophy should be more adequately understood in the light of its history and affiliations, in order that his significance for the constructive thinking of our own day should become more apparent. The *Archiv* will therefore assemble articles which might otherwise be scattered and in a sense lost in the other journals, together with unpublished materials like Hegel's own provisional sketches and outlines, bibliographical material, biographical studies, and articles expounding the meaning of Hegel and of the German idealism. Dr. Lasson, the editor, is already well known to the philosophical world by reason of his highly able books about Hegel, and promises, in connection with Dr. Otto Weiss, a new edition of Hegel's complete works.

The first number presents a series of Hegel manuscripts, hitherto unpublished, the property of Harvard Library. These have been edited with great care by Dr. Löwenberg, of Harvard University, the whole being introduced by a very illuminating discussion of the master's earlier essays in philosophical thinking. It is of interest to have attention called to the emphasis placed by Hegel in his earlier years upon the very elements for the alleged slighting of which his matured system is nowadays accused of—excessive intellectualism. To the young Hegel, as to the

mature Eucken, the category of life is the highest, and love is its active principle. The editor finds no real hiatus, moreover, between these earlier writings and the later system.

The manuscripts consist of an outline to the Encyclopedia, a bare skeleton of about eight pages, marginal notes upon which then take six pages more; an outline of the Propædeutic, presenting in thirty pages the gist of the logic; and fifteen pages of miscellaneous fragments and notes. They challenge the same type of interest as would attach to an artist's skeleton outline. They tend to show in primitive nakedness the things that Hegel regarded at that time as most essential.

The entire *Archiv,* then, is based upon a quite different plan from the *Kantstudien.* One may judge that under wise editorship it should in time constitute a very serviceable aid to the study of Hegel in particular, and of the German idealism which has felt his influence.

E. L. HINMAN.

UNIVERSITY OF NEBRASKA.

JOURNALS AND NEW BOOKS

REVUE PHILOSOPHIQUE. March, 1913. *Qu'est-ce que la verité? (1er. art.)* (pp. 225–250): F. PAULHAN. – A criticism of various theories of truth, favoring a conception of truth as an abstract identity of phenomena. *Le concept sociologique du progrès* (pp. 251–261): E. DE ROBERTY. – "Movement (or simple spatial change), evolution (or movement vitally qualified), and progress (or evolution socially qualified)" are the three successive spheres that constitute the universe. *Les défenses psychiques* (pp. 262–273): I. IOTEYKO. – A second article on the defensive action of fatigue. *Recherches sur le méchanisme de l'imagination créatrice* (pp. 273–288): N. KOSTYLEFF. – A first article applying the type of analysis that has been made prominent by Freud to the problem of inspiration in the novel. *Notes et discussions. Un paradoxe psychologique:* L. DUGAS. *Analyses et comptes rendus.* Brunschwieg, *Les étapes de la philosophie mathématique:* A. DARBON. T. Lipps, *Psychologische Untersuchungen, Bd. II.:* HUPERT. W. Harburger, *Grundriss des musikalischen formvermögens:* L. ARRÉAT. Dr. T. Elsenhans, *Lehrbuch der Psychologie:* G. L. DUPRAT. C. Bouglé, *La sociologie de Proudhon:* J. DELVAILLE. E. Meyer, *Histoire de l'antiquité:* A. JOUSSAIN. *Notices bibliographiques. Revue des périodiques.*

REVUE PHILOSOPHIQUE. April, 1913. *Une théorie nouvelle de la religion* (pp. 329–379): G. BELOT. – A critical study of É. Durkheim's *Les formes élémentaires de la vie réligieuse. Qu'est-ce que la verité?* (pp. 380–399): FR. PAULHAN. – A second and final article, showing that the question "what is truth" admits of no simple answer because many cases and sorts of truths have to be distinguished. *Revue générale. Le mouvement Bergsonien:* L. DAURIAC. *Analyses et comptes rendus. Année psychologique, t. XVIII.:* R. MEUNIER. L. Limentani, *I presup-*

positi formali della indagine etica: F. PAULHAN. A. de Gomer, *L'obligation morale raisonnée, ses conditions:* P. BERROD. A. Cartault, *Les sentiments généreux:* F. PAULHAN. G. Binnet-Maury, *L'unité morale des religions:* L. A. J. Seth, *English philosophers and Schools of Philosophy:* A. PENJON. *Revue des périodiques.*

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NOTES AND NEWS

Among other bequests, the late Miss Henriette Hertz, who died in Rome on April 9, has, according to the London Times left to the British Academy, £2,000 for an annual lecture or investigation or paper on a philosophical problem, or some problem in the philosophy of western or eastern civilization in ancient and modern times, and £1,000, the income of which is to be used to promote the publication of some philosophical work to reward some meritorious publication in the department of philosophy.

THE next meeting of the Conference on the Relation of Law to Social Ends will take place at the University of Chicago, November 28 and 29. The subject of discussion will be, "The Province of Rule and Discretion in the Administration of Justice." All those interested are invited to communicate with the Secretary, Professor Morris R. Cohen, College of the City of New York, New York City.

GARDNER C. BASSET, Ph.D., of the Johns Hopkins University, in psychology (1913), has been appointed research assistant in the Eugenics Record Office of the Station for Experimental Evolution at Cold Spring

Harbor, and will continue the work on the intelligence of inbred white rats begun at Johns Hopkins.

DURING the spring quarter at the University of Chicago, Dr. William Salter delivered eleven lectures on "Nietzsche's Views of Morality and Christianity," completing a course on Schopenhauer and Nietzsche begun two years ago. The lectures will be published later.

PROFESSOR JOHN LAIRD, professor of logic in the Dalhousie University of Halifax, Nova Scotia, has been appointed to the chair of logic and metaphysics in the Queen's University, Belfast, in succession to the late Professor Park.

PROFESSOR JOHN M. MECKLIN has resigned the professorship of mental and moral philosophy at Lafayette College because his teaching was regarded as not in accord with the standards of the Presbyterian Church.

THE mathematical works of the late Henri Poincaré are to be published by the firm of Gauthier-Villars, under the auspices of the minister of public instruction and the Paris Academy of Sciences.

DR. EDWARD O. SISSON, professor of education in Reed College and previously head of the department of education in the University of Washington, has been appointed commissioner of education for the state of Idaho.

WELLESLEY PERRY CODDINGTON, since 1891 professor of philosophy at Syracuse University, died recently at Hamburg, Germany. He was born at Ossining, New York, in 1840, and was graduated from Wesleyan University in 1860.

The degree of doctor of laws was conferred on Dr. John Dewey, professor of philosophy at Columbia University, by the University of Michigan at its last commencement.

DR. TH. WAGNER, who for many years has been associated with the editorial staff of the *Zeitschrift für Psychologie,* died suddenly on July 6 of heart failure.

MR. ALBERT G. A. BALZ, Fellow in Philosophy at Columbia University 1912–13, has been appointed assistant professor of philosophy at the University of Virginia.

JOHN L. ULRICH, Ph.D. (Johns Hopkins University, '13), has been appointed instructor in physiological psychology in the Catholic University of America.

MR. E. E. FARIS, of the University of Chicago, has been appointed assistant professor of philosophy at the University of Iowa.

DR. EDWARD LEROY SCHWAB, of the University of Iowa, has been appointed professor of philosophy at Northwestern University.

PROFESSOR LYMAN P. POWELL, head of the ethics department at New York University, has accepted the presidency of Hobart College.

With the close of its sixth volume the *Zeitschrift für Religions-psychologie* has been temporarily suspended.

DR. J. F. CRAWFORD, of the University of Chicago, has been appointed professor of philosophy in Beloit College.